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ABSTRACT

The paper traces the origins of the definitions of autism, notes controversies over its etiology, and discusses the wide variety of intervention approaches used. Psychoeducational approaches, such as play therapy and B. Bettelheim's psychoanalytic approach, are described and criticized in terms of premises and the anecdotal nature of evaluation used. Behavioral approaches are also described. Difficulties in evaluating the efficacy of interventions are noted, and a few studies which attempt to do so are reviewed. Questions are posed for the future of the field, including the benefits of integration, the nature of teacher education, and the effects of current funding stagnation. Reactions by parents, specialists, administrators, and teachers conclude the paper. (CL)

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BEHAVIORALLY IMPAIRED

A Support System for Services for Behaviorally Impaired

Etiology, Characteristics, and Interventions with Autistic Children: Implications for Delivery of Services

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Etiology, Characteristics, and Interventions with Autistic Children: Implications for Delivery of Services

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Etiology, Characteristics, and Interventions with Autistic Children: Implications for Delivery of Services

Robert H. Zabel, Ph.D.

Since 1943 when Kanner described twelve major characteristics comprising the syndrome of early infantile autism, there has been considerable discussion and controversy surrounding the etiology, characteristics, and treatment of children with the disorder. Given the relatively low incidence of the syndrome (perhaps only 2-4.5 cases per 10,000 persons, Hingtgen and Bryson 1972), this attention has been disproportionately greater than that devoted to most other handicapping conditions. This is probably due primarily to the bizarre and puzzling nature of the behavior of children who are considered autistic.

Etiology

The etiology, or causes, of autism have been a source of considerable controversy and probably the major impetus behind efforts to distinguish the syndrome from other forms of "emotional disturbance." The implication of early reports was that the syndrome resulted from a disturbed mother-child relationship, consisting of a cold, intellectual, rejecting ("refrigerator") mother and a withdrawing, isolated child engaging in bizarre behaviors such as avoidance of eye contact, self-stimulation, and echolalia. These behaviors were viewed as efforts to turn away from a painful, nonnurturing world (Axline, 1969; Bettelheim, 1967; Zaslow & Breger, 1969). Kanner(1943 , 1956) himself described parents of autistic children as highly intelligent and successful but unsociable, formal, detached, obsessional and lacking in warmth.

By the 1960's and 1970's, however, several trends converged to place doubt on this psychogenic explanation. First, there was a growing awareness among professionals and parents of the lack of evidence that autistic children experienced extremely adverse conditions of an interpersonal nature.

In few cases did autistic siblings emerge from family environments similar to those of their autistic brothers and sisters. Furthermore, children who experienced even more blatantly adverse environments rarely developed the characteristics of autism. The deviant parenting patterns came to be viewed as a result, rather than a cause, of an autistic child's behavior. In fact, there is evidence that parents of autistic children, as a group, are actually comparable to those of normal children (Lennox, Callias, and Rutter, 1977).

At the same time, there was increasing evidence that organic or physiological causes involving dysfunctions of the central nervous system resulted in the characteristic behaviors of autism (Rimland, 1964; Rutter, 1969). The exact nature of these, however, has not yet been established. In reviewing some of this literature, Wing (1976) concluded that many different organic conditions may produce autistic behavior.

Finally, during the past 20 years, there has been a tremendous development of intervention techniques, many based upon operant learning principles, that have been used in the education and treatment of abnormal populations, including autistic (Rimland, 1972). For utilization of these interventions, considerations of etiology was a peripheral, even an irrelevant, issue. Rutter has pointed out that effective treatments are often developed without knowledge of why they work. He says, "The demonstration that a treatment is effective does not thereby mean that its theoretical basis was also correct. Conversely, because a theory is right it does not necessarily mean that the treatment methods which derive from it will be successful" (1978, p. 329).

Characteristics

In 1981, the U.S. Department of Education issued a technical amendment to Part B of the Education of the Handicapped Act of 1975 which deleted reference to autism under the category "seriously emotionally disturbed" and included it under the label of "other health impaired" (Federal Register, 1981). This proposed change reflects efforts to disassociate autism from emotional disturbance, because of the psychogenic implications discussed above. Parents of autistic children, represented by the National Society for Autistic Children, have been instrumental in this shift of categorical labels. Unlike etiology, considerations of the characteristics of autism do not carry with them implications of causation. Determination of the constituent characteristics of a syndrome and the categorical labels they generate can serve some important functions in addition to providing administrative convenience in counting children and funding programs. The major purpose of any diagnostic label should be to indicate strategies or interventions for the members of that diagnostic category. As Salvia and Ysseldyke (1978) have emphasized, the justification for categorizing and labeling exceptional children by schools is ultimately the delivery of appropriate services.

In the case of autism, agreement upon characteristics has been difficult. Since the original Kanner definition, children with increasingly diverse characteristics were considered by some to be "autistic type" or to have "autistic-like characteristics." Most attempts at defining the syndrome have relied upon the earlier Kanner description, particularly his four major descriptors: extreme autistic aloneness; an obsessive desire for sameness; stereotypic, repetitive behavior; and echolalia.

Although the term "autism" has been used interchangeably with "childhood psychosis" and "childhood schizophrenia" as well as other labels for severe emotional disturbance, there has lately been a tightening of the diagnostic category. Recent studies (e.g., Ornitz, Guthrie & Farley, 1978) and professional opinion based upon research and

clinical data now point to some consensus about the characteristics of the syndrome. Rutter (1978), in a comprehensive review of the literature, delineated four essential criteria: onset before the age of 30 months; impaired social development; delayed and deviant language development; and insistence on sameness as shown by stereotyped play patterns, abnormal preoccupations, or resistance to change. Additionally, the National Society for Autistic Children (NSAC) specifies onset prior to 30 months of age of disturbance in "(1) developmental rates and sequences; (2) responses to sensory stimuli; (3) speech, language, and cognitive capacities; and (4) capacities to relate to people, events, and objects" (1978, p. 164). Schopler points out that certain general features are essential for a child to be considered autistic. He says, "At this time, there are not more than four features that define autism in most children. There are, on the other hand, a great many more specific behaviors and characteristics that are found in some autistic children, but not in all" (Schopler, 1978, p. 168).

It has been argued that despite some common symptoms (e.g., inability to relate to people and inarticulate language and speech), there is a diagnostic difference between autism and other forms of childhood psychopathology, notably childhood schizophrenia. Age of onset may be a key diagnostic variable, since other forms of severe behavior disorders, as well as mental retardation can include the autistic features as well. The change in the title of the major journal in the field from Journal of Autism and Childhood Schizophrenia to Journal of Autism and Developmental Disorders is an effort to distinguish autism from other "psychological" disorders. Yet it may also reflect the concern with implied etiology of the syndrome as much as with differentiating sets of characteristics.

Interventions

A variety of approaches to treatment of autistic children have been attempted. Most of these tend to fall into general categories, although the boundaries between these are not always clear. These major intervention categories also tend to imply views of the nature and etiology of the condition. Some of these can be considered biomedical, others psychoeducational, and yet others, behavioral in orientation.

Biomedical refers to approaches that involve some form of biological treatment or manipulation, such as use of drugs, megavitamins, or perceptual training. Psychoeducational interventions tend to be based upon psychodynamic principles and include methods whose effectiveness is determined by cognitive or affective changes. These methods tend to focus on the processes and relationships that are involved. A third major category of interventions is one that is based upon behavioral learning theories. In this paper, the latter two strategies, psychoeducational and behavioral, will

be reviewed since they are most applicable to educational settings.

It should be noted that few researchers have attempted to go beyond the assessment of particular techniques to more comprehensive evaluations of entire programs. "Successful outcomes have been reported for most of these techniques, usually based on single case studies, clinical reports, or newspaper accounts" (Schopler, Mesibov, DeVillis, & Short, 1979). However, complex methodological difficulties are encountered in evaluating entire programs. The few attempts to evaluate the efficacy of programs are also included in the review.

Psychoeducational Interventions

Many psychotherapeutic, or psychoeducational interventions are based upon the psychogenic interpretations of autism discussed earlier (i.e., underlying emotional impairment resulting from adverse mother-child relationships). Psychoeducational interventions emphasize the establishment of accepting, comforting, nurturing environments to foster healthy developmental experiences.

Axline's play therapy (1948; 1964), is an example. In Dibs: In Search of Self (1964), Axline provides a detailed account of the progress of Dibs, a mute, autistic child, through individual play therapy. In this program, the child was allowed to select toys for play. The therapist freely accepted and later interpreted his actions to him as the reflection of inner conflicts. Axline reported successfully guiding Dibs in an examination of relationships with his parents through the medium of play utilizing dolls representing familial roles. After lengthy treatment, Axline believed that Dibs was able to understand and resolve some of the inner conflicts resulting from parental rejection. He emerged a recovered and apparently gifted child.

Bettelheim, also, has presented a prominent psychoanalytic approach used at the Orthogenic School (1950; 1967) of the University of Chicago. In the Bettelheim program autistic and other severely disturbed children are separated from their families, who are viewed as the source of their problems, for long-term residential treatment. Bettelheim advocates total acceptance of the children and their deviant behavior, as well as allowance, even encouragement, for them to regress within a safe, therapeutic environment. From this regression, children are enabled to start over, to re-live and resolve earlier developmental crisis. In The Empty Fortress (1975), and "Joey: A Mechanical Boy" (1959), Bettelheim provides detailed studies of the progress of several children he considers autistic.

Fenichel's day school program for severely disturbed children, the League School, represents another major psychoeducational approach (1974). Although also based upon psychogenic interpretations of several behavioral disorders, Fenichel emphasizes the establishment of "structure"

in the school environment (e.g., predictable rules and routines, consistent, directive efforts to help autistic and severely disturbed children deal with their problems, and academic remediation). Through a variety of cognitive and affective experiences, the League School program attempts to help children understand the underlying conflicts producing their pathological behavior.

DesLauriers (1978; DesLauriers & Carlson, 1969) proposes a neurophysiological basis for autism resulting in impairment of affective functions, yet he has devised a treatment approach called "theraplay", which is similar in some respects to psychoeducational approaches. Theraplay emphasizes the high affective impact in all stimulating contacts the autistic child encounters in play. "What the child learns first is that it is fun to be human with another human being, that it is fun to be a member of the human race, and that grown-up human beings are worth having around to make life pleasant" (DesLauriers, 1978, p. 317). Unlike most psychoeducational interventions, parents are directly involved in the training seminars. To illustrate the impact of the procedures on the development of language, DesLauriers has offered some case examples of the theraplay procedures, and progress of autistic children (DesLauriers, 1978).

Psychoeducational approaches to treatment of autistic children have been criticized on a number of grounds. Basic to much of the criticism is the previously discussed assumption that poor parenting or a faulty environment is the source of the condition, and that it is the affective damage from those impaired relationships that must be dealt with in treatment. In addition, the anecdotal nature of evaluation of children's progress in these programs and the difficulties in replicating procedures have also come under fire. For example, referring to the Bettelheim program, Morgan (1981) says,

> "...his reported success is difficult to accept without qualifications. Perhaps he has been working with a select sample of autistic children--children who show the most potential or improvement in the first place or children who do not fit the classical criteria...Or maybe his standards for 'return to society' in an idependent role are more lenient than those of others. Or it could be that the subtleties of his techniques have eluded other therapists struggling for success with these children." (pp. 123-124)

Behavioral Approaches

Perhaps the most widely used techniques currently utilized with autistic children are behavioral in orientation. In sharp contrast to the psychoeducational approaches, outlined above, these interventions largely avoid consideration of etiology. While there have been attempts at providing behavioral explanations for the learning of autistic behavior (Ferster,

1961), most behaviorists are more concerned with how the current behavior of autistic children can be improved. In psychoeducational interventions, extensive use is made of analysis of an individual child. Behavioral interventions have focused on the modification of specific deviant behaviors typical of autistic children. These include language development, social interaction, and repetitious, self-stimulating behavior.

Severe language deficits ranging from muteness to various forms of echolalia are a universal feature of the syndrome. Attempts to teach both meaningful speech and the appropriate use of language in social interactions have been attempted utilizing behavioral approaches. Hewett (1965) presented one of the earliest attempts to apply behavioral principles in teaching language skills to a nonverbal, five year old autistic boy. He sequentially utilized food rewards to get the boy to attend to the teacher, then social imitation to get the child to imitate gestures, followed by food rewards for expressive language and for transference of language skills to other situations. Risley and Wolf (1967) provided another early demonstration of the reduction of echolalic behavior of autistic children utilizing the behavioral techniques of reinforcement, shaping and fading. Lovaas and his associates at UCLA have reported numerous studies of the application of behavioral techniques to teach language to autistic children (Lovaas, 1977). In an early study (Lovaas, Berberich, Perloff, & Schaeffer, 1966), they showed it was possible to build imitative verbal behavior of autistic children through the use of a discrimination learning paradigm. In a more recent study, Lovaas, Schriebman, and Koegel (1976) outlined the steps involved in teaching verbal imitation. Children were taught to make one response in the presence of a certain stimulus and another in response to another stimulus. Often, visual (e.g., color or size) and verbal (e.g., volume) prompts were used that were later gradually faded so that the child's verbalizations were in response to the desired stimulus alone. Language training in a number of model programs (e.g., Donnellan-Walsh, 1977) have been based upon the Lovaas language training efforts.

Lovaas admits that even with intensive training, autistic children generally do not acquire what would be considered normal language and that there are problems with generalization of skills across settings (Lovaas, Koegel, Simmons, & Long, 1973). He has, however, demonstrated that the systematic application of learning principles can produce substantial progress for most autistic children.

Lack of adequate and appropriate social interaction has also been addressed by some behaviorally oriented researchers. Strain (1980), for example, has reviewed some behaviorally oriented interventions to reduce autistic withdrawal. In these, adults have been able to decrease social withdrawal by increas-

ing peer interaction through the contingent provision of attention and verbal praise. Strain and his associates have also developed strategies for training peers to imitate their social interactions and to provide social reinforcement for withdrawn children. Their data indicate that an autistic child's peers, as well as adults, can increase the child's social interaction, and that it can continue to increase over time and generalize to other situations.

Because they interfere with appropriate social behavior and learning, and can be harmful, self-stimulating (e.g., rocking, finger flicking) and self-aversive behaviors such as (e.g., head and arm banging, biting arms, hands, or wrists) have also been treated with behavioral methods. Various forms of punishment, including mild electrical shocks, time out, verbal reprimands, slapping, and over-correction have been used to decrease such behavior of autistic children (Risley, 1968). Again, a major difficulty with the use of these procedures has been their lack of generalization to other settings. Because of this, as well as ethical concerns, physically aversive techniques are generally used as a last resort. Other behavioral techniques such as reinforcement of incompatible behavior and the removal of the sensory consequences of self stimulatory behavior (Lavigna, 1980) may have equal effectiveness.

Efficacy of Programs

Very few efforts to study the efficacy of entire programs for autistic children are available. One reason for this is that it is an imposing task to attempt to determine how well a complex program, as opposed to a specific technique, may effect autistic children. Numerous follow-up studies (reviewed by Lotter, 1978) have provided detailed information about the condition of autistic children over time, but have not related outcome to specific treatment. Instead, several of these have focused on the relationship of variables such as age of onset, amount of language acquisition, and intelligence to progress over time.

Lovaas, Koegel, Simmons, and Long (1973) did attempt to evaluate the efficacy of the behaviorally oriented program at UCLA. Children who had been involved in the treatment program emphasizing the reduction of self-stimulating behaviors, promotion of verbal imitation, and acquisition of social and self-help skills were observed on multiple response measures. These included percent of their behaviors that were categorized as self-stimulation, echolalia, appropriate verbal, social nonverbal and appropriate play. Over the course of treatment, the authors noted that self-stimulatory behavior was reduced to about one-half of its pre-treatment level, while echolalic speech was reduced only slightly in the whole group, given increases of speech by previously mute children. Also, children in the Lovaas study exhibited about four times as much appropriate verbal and social nonverbal behavior and nearly twice

as much appropriate play following treatment. One to four years following treatment, follow-up measures of the behavior of the same children were obtained. The follow-up data indicated that maintenance of gains made in the program was largely determined by where the children were discharged: those who went to state hospitals lost what they had gained, self-stimulation and echolalia increased, and they lost much of their appropriate verbal and social nonverbal behavior; children who stayed with their parents maintained gains or progressed even further. Although it does appear from the Lovaas, et al. data that these relationships did occur, it remains unclear exactly how the hospital or home environments contributed. In addition to observed behavioral change, scores on the Stanford-Binet and Vineland Social Maturity Scale indicated gains for children while they participated in the program. Most had been untestable on the I.Q. measure before treatment, but functioned in the mildly to moderately retarded range at termination of treatment. Likewise, the mean social maturity quotient increased during the same period.

Perhaps the major attempt to evaluate special educational programs and to compare various approaches to treatment of autistic children is the so-called Maudsley study (Rutter & Bartak, 1973; Bartak, 1978). Three well established programs were compared: One, primarily a psychotherapeutic unit with little emphasis on teaching; a second, utilizing a permissive class combining regressive techniques and emphasizing development of relationships along with special educational methods; and a third, providing a structured and organized setting for the teaching of specific skills. Children involved in each unit were first studied to establish their baseline performance and to confirm diagnostic criteria for autism. Next, the characteristics of each unit were systematically established utilizing time sample observations. Finally, children were followed-up 3 1/2 to 4 years after treatment to assess educational, social, and behavioral progress. In terms of their behavior while in each of the units, children in the first unit were observed to spend the largest amount of time (71 percent) unoccupied or in irrelevant or stereotyped activities. The third group, however, was actively engaged in activities 59 percent of the time. This group also spent the greatest amount of time in parallel or cooperative play, while the first group spent the least. After treatment all three groups were found to engage in less deviant behavior at home as reported by parents, but there were no significant differences between treatment groups. Direct observations of children in the test situation confirmed these parent reports. In the area of communication, however, children in the third group showed more progress in use of speech than those in the other two units. In scholastic achievement as measured by standardized tests,

children in the structured educational program again exceeded those in the other units. Even when I.Q.'s were taken into account, the greatest progress in reading also was made by the third group.

Schopler, Reichler and their associates (Schopler, Brehm, Kinsbourne, & Reichler, 1971) have also attempted to substantiate the beneficial effects of relatively structured environments (i.e., where the adult determines materials, length of activity, and manner of work) as opposed to relatively unstructured environments (i.e., where the child makes those decisions) utilizing a parent training program. On measures of observed attending, appropriate affect, relatedness, meaningful vocalizations, and nonpsychotic behavior, they found that autistic children in more structured environments learned more adaptive behavior patterns.

Building upon findings such as this, Schopler and associates developed TEACCH, a state-wide system in North Carolina utilizing a developmental curriculum emphasizing parent involvement. Teachers, consultants, and parents jointly design programs to help parents to understand, manage, and teach communication, social and community survival skills to their autistic children. The program utilizes a developmental assessment and focuses on interaction between student and instructor. Included in the TEACCH program are individualized, carefully structured teaching procedures in which instruction, consequences, daily routine, use of materials, and many other details are made explicit and concrete (Lansing, & Schopler, 1978; Olley, 1980).

Because of the central role of parents in this program, an assessment of treatment outcome was undertaken with the families of children who had been involved in the program over an 11 year period (Schopler, Mesibov, DeVellis, and Short, 1979). Parents were asked to respond to a questionnaire asking them to rate the program's impact on their children. Seventy-nine percent gave highest overall ratings for helpfulness, with only 2 percent giving the lowest rating. Furthermore, the more involvement of the parent, the higher the rating of program helpfulness. In all major problem areas: social relationships, motor skills, self-help skills, language and communication, and difficult and strange behavior, the parents perceived the program as helpful. Additionally, parents reported feeling better about their competence as parents, and their own ability to manage, teach, understand and enjoy their children. While this report measured only parent perceptions of improvement of their children and their own increased abilities to cope with and teach their autistic children, the high level of parent satisfaction is encouraging.

Conclusions

Autistic children will undoubtedly continue to receive a good deal of attention in coming years. It appears that general agreement on the major character-

istics of the syndrome is growing, but that questions of etiology will continue to generate debate. At this time, some types of physiological inadequacies or malfunctions appear more likely than reactions to adverse parenting as sources of the disorder. However, proven explanations of the nature of autism remain unavailable.

Both of the major intervention strategies psychoeducational and behavioral are reported by those who utilize them to be successful with autistic children. Psychoeducational strategies, however, are criticized because of their reliance on psychogenic etiological explanations and difficulties in replicating reported successes. Behavioral interventions are criticized primarily because of problems in generalization of treatment effects across setting and time. Few entire programs have yet been systematically evaluated, and some well-known programs for autistic children have yet to present evidence of their efficacy. Galow (1980) argues that both psychoeducational and behavioral approaches, as well as physical treatments such as drugs or diet,

"...have a place and may be reasonable for selected children and for selected objectives...the nature of the problem and evidence that does exist would argue for an eclectic methodology, applying the best elements of humanistic treatments, the strengths of stimulus-response learning theory methods, and where necessary for specific medical problems, the inclusions of a physical control mechanism." (p. 3)

The necessity of designing a functional curriculum to fit the individual child's need within a developmental framework, rather than a curriculum to fit a diagnostic label is, of course, now legally required for all exceptional children. Several programs for autistic children (e.g., Donnellan, 1980; Olley, 1980; Steucher, 1973; Wood, 1975) have included such an approach to educational programming.

At the federal level, for educational purposes, autistic children have been removed from the category of "seriously emotionally disturbed." This move raises a number of questions regarding the allocation of resources, training of personnel, and delivery of appropriate services for autistic children.

Financial resources for education of handicapped children appear to be limited to no more than current levels of funding over the next few years. How does the creation of a new category for counting and funding purposes fit into this bleak forecast? At this point, the effect remains to be seen. It may mean however, that resources for autistic children must come from those that are presently targeted for other categories of exceptional children, notably those classified as "seriously emotionally disturbed."

Another series of questions that must be addressed concerns the nature of professional training for teachers. Traditionally,

persons primarily trained to work with emotionally disturbed and behaviorally disordered students have served as teachers of autistic children. Does the separation of these types of children mean that training and certification requirements will be substantially different? What exactly are the additional or different competencies required of teachers of autistic children from those of seriously emotionally disturbed? Major intervention strategies currently employed in the education and treatment of autistic children, as reviewed above, are actually quite similar to those with children traditionally labeled emotionally disturbed or behaviorally disordered (Zabel & Wood, 1977). However, additional skills that may be especially important for teachers of autistic children should include emphasis upon knowledge of language development and intervention techniques appropriate for autistic children. Other skills that have been viewed as especially important for teachers of autistic children, such as ability to work with parents, are now typically included in training of all teachers to work with exceptional children.

It may be that separating autistic children from others with emotional or behavioral problems may actually create impediments to providing appropriate services. If new and different teacher training and certification requirements are generated by the switch, will there be sufficient "appropriately" trained teachers? At this time, severe shortages of adequately trained teachers exist in some areas of special education, including emotional and behavioral disorders. The change, therefore, may exacerbate the shortage for both autistic and behaviorally disordered areas.

In addition, in some programs (Knoblock, 1977; Olley, 1980) the importance of integrating autistic children with both other exceptional and nonexceptional children has been emphasized. Whether the movement toward categorical segregation will impede or facilitate such integration is uncertain, yet it would appear to create some psychological barriers to integrated groupings of students.

In sum, it appears that the shift of categories primarily reflects concern with etiological implications of the label "seriously emotionally disturbed", rather than evidence that substantially different types of intervention strategies, professional training of teachers, or delivery models are required for autistic children. At least, it would be hard to support the argument that the educational needs of autistic children are more akin to children presently labeled "other health impaired" than to those labeled "seriously emotionally disturbed."

Grosenick and Huntze (1980) among others have advocated dropping the categorical label, "emotionally disturbed", to be replaced with "behavioral disorders." There is a logic to this proposal, as the "behavior disorders" label has been adopted

by many in the profession and is even used in the name of the division of Council for Exceptional Children. A number of states have also opted for similar designations in place of "emotionally disturbed." If such a change were accomplished at the federal level, perhaps autism, as well as some other disorders, could be subsumed under such a label regardless of suspected etiology.

References

Axline, V. Dibs: In Search of Self, New York: Ballantine Books, 1964.

Axline, V. Play Therapy (revised edition), New York: Ballentine Books, 1969.

Balow, B. Current issues in programming for autistic children and young adults. Iowa Perspective, May, 1980, 1-4.

Bartak, L. Educational approaches In M. Rutter (ed.), Autism: A reappraisal of concepts and treatment, New York: Plenum Press, 1978.

Bettelheim, B. Joey: A "mechanical boy." Scientific American, 1959, 200, 116-217.

Bettelheim, B. Love is not enough, New York: The Free Press, 1950.

DesLauriers, A. M. Play, symbols, and the development of language. In M. Rutter & E. Schopler (Eds.) Autism: A reappraisal of concepts and treatment, New York: Plenum, 1978.

DesLauriers, A. M., & Carlson, C. F. Your child is asleep. Homewood, Illinois: The Dorsey Press, 1969.

Donnellan, A. M. An educational perspective of autism: Implications for curriculum development and personnel development. In B. Wilcox & A. Thompson (Eds.) Critical Issues in Educating Autistic Children and Youth. USDOE (OSE), 1980.

Assistance to States for Education of Handicapped Children. Federal Register, 46, January 16, 1981.

Fenichel, C. Special education as the Basic Therapeutic tool in treatment of severely disturbed children. Journal of Autism and Childhood Schizophrenia, 1974, 4, 177-186.

Ferster, C. B. Positive reinforcement and behavioral deficits of autistic children. Child Development, 1961, 32, 437-456.

Grosenick, J. K. & Huntze, S. L. National needs analysis in behavior disorders: Severe Behavior Disorders. Columbia, Missouri: University of Missouri, 1980.

Hewett, F. M. Teaching speech to an autistic child through operant conditioning. American Journal of Orthopsychiatry 1965, 35, 927-936.

Hingtgen, J. W. & Bryson, C. Q. Research developments in the study of early childhood psychoses: Infantile autism, childhood schizophrenia and related disorders. Schizophrenia Bulletin, 1972, 5, 8-54.

Kanner, L. Autistic disturbances of affective contact. Nervous Child, 1943, 2, 217-250.

Knoblock, P. Field-based training at Jowonia. In F. Wood (Ed.) Proceedings of a conference on preparing teachers for severely emotionally disturbed children with autistic characteristics. Minneapolis, MN: Dept. of Psychoeducational Studies, University of Minnesota, 1977.

Lansing, M. D. & Schopler, E. Individualized education: A public school model. In M. Rutter & E. Schopler (Eds.) Autism: A reappraisal of concepts and treatment, New York: Plenum, 1978.

LaVigna, G. Reducing behavior problems in the classroom. In B. Wilcox & A. Thompson (Eds.) Critical Issues in educating autistic children, DOE (OSE), 1980.

Lennox, C., Callias, M., & Rutter, M. Cognitive characteristics of parents of autistic children. Journal of Autism and Childhood Schizophrenia, 1977, 7, 243-261.

Lotter, V. Follow-up studies. In M. Rutter & E. Schopler (Eds.), Autism: A reappraisal of concepts and treatment, New York: Plenum, 1978.

Lovaas, O. I. The autistic child: Language development through behavior modification. New York: Irvington Publishers, Inc., 1977.

Lovaas, O. I., Berberich, J. P., Perloff, B. F., & Schaeffer, B. Acquisition of imitative speech by schizophrenia children. Science, 1966, 151, 705-707.

Lovaas, O. I., Koegel, R., Simmons, J. O., & Long, J. S. Some generalization and follow-up measures on autistic children in behavior therapy. Journal of Applied Behavior Analysis, 1973, 6, 131-165.

Lovaas, O. I., Schriebman, L., & Koegel, R. L. A behavior modification approach to the treatment of autistic children. In E. Schopler & R. J. Reichler (Eds.), Psychopathology and Child Development, New York: Plenum Press, 1976.

Morgan, S. The unreachable child. Memphis, Tennessee: Memphis State University Press 1981.

Olley, J. G. Organization of educational services for

autistic children and youth. In B. Wilcox & A. Thompson (Eds.), Critical Issues in educating autistic children and youth. US DOE (OSE), 1980.

Ornitz, E., Guthrie, D., & Farley, A. The early development of autistic children. Journal of Autism and Childhood Schizophrenia, 1977, 7, 207-229.

Rimland, B. Infantile autism. New York: Apple-Century-Crofts, 1964.

Rimland, B. Operant conditioning: Breakthrough in the treatment of mentally ill children. In E. P. Trapp & P. Himelstein (Eds.), Readings on the Exceptional Child, (2nd edition). New York: Appleton-Century-Crofts, 1972.

Risley, T. The effects and side effects of punishing autistic behaviors of a deviant child. Journal of Applied Behavior Analysis, 1968, 1, 21-34.

Risley, T. R., & Wold, M. M. Establishing functional speech in echolalic children. Behavior Research and Therapy, 1967, 5, 73-88.

Rutter, M. Concepts of autism: A review of the research. In S. Chess and A. Thomas (Eds.), Annual progress in child psychiatry and development, New York: Brunner/Mazel, 1969.

Rutter, M. Diagnosis and definition of childhood autism. Journal of Autism and Childhood Schizophrenia, 1978, 8, 137-138.

Rutter, M., & Bartak, L. Special education treatment of autistic children: A comparative study, II. Follow-up findings and implications for services. Journal of Child Psychology and Psychiatry, 1973, 14, 241-270.

Salvia, J., & Ysseldyke, J. E. Assessment in special and remedial education. Boston: Houghton Mifflin, 1978.

Schopler, E. On confusion in the diagnosis of autism. Journal of Autism and Childhood Schizophrenia, 1978, 8, 139-161.

Schopler, E., Brehm, S., Kinsbourne, M., & Reichler, R. J. Effect of treatment structure on development of autistic children. Archives of General Psychiatry, 1971, 24, 415-421.

Schopler, E., Mesibov, G. B., DeVillis, R. F., & Short, A. Treatment outcome for autistic children and their families. Presented at 5th International Congress for the Scientific Study of Mental Deficiency, Jerusalem, Israel, 1979.

Strain, P. S. Social behavior programming with severely handicapped and autistic children. In B. Wilcox & A.

Thompson (Eds.), Critical issues in educating autistic children and youth. US DOE (OSE), 1980.

Steucher, U. Tommy: A treatment study of an autistic child. Reston, Va.: Council for Exceptional Children, 1973.

Wood, M. M. (Ed.) Developmental Therapy, Baltimore, Maryland: University Park Press, 1975.

Zabel, R. H., & Wood, F. H. Efficacy of interventions for emotionally disturbed children: A review of research. Unpublished paper, Minneapolis MN: University of Minnesota, Department of Psychoeducational Studies, 1977.

Zaslow, R. W., & Breger, L. A theory and treatment of autism. In L. Breger (Ed.), Clinical-cognitive psychology, Englewood Cliffs, N.J.: Prentice-Hall, 1969.

A Series of Reactions

A Reaction by:

Alorecht, Kristi
Behavior Specialist
Nebr. Diagnostic Resource Center
Cozad, Nebraska

I have just had the opportunity to read the paper by Robert H. Zabel, Ph.D. on, "Etiology, Characteristics and Interventions with Autistic Children: Implications for Delivery of Services." Below are my reactions to the paper in response to your questions.

I found the paper to be very informative. It allowed me to gain more insight into the characteristics of autistic children. I appreciated the descriptions of intervention techniques. I found these descriptions to be helpful in my own rare encounters with autistic children. The questions raised about the nature of professional training necessary were also valid. At this time training in this area seems very limited and unavailable to professionals in most areas.

The paper was helpful. It provided information on autistic children in a concise and helpful manner.

I felt that Dr. Zabel did an excellent job in presenting the major issues and concerns in identifying and remediating autistic children. His overview of this issue helps place things in proper perspective.

From my own experience very little is being done for autistic children in Nebraska. The availability of programs and services for these children are virtually non-existent in most parts of the State. Furthermore, professional training is also unavailable to most teachers in the state of Nebraska. In this state we are in need of better training and

facilities for working with autistic children.

At the Nebraska Diagnostic Resource Center we are on occasion requested to assess autistic children and help set up appropriate programs for them. This paper provided some important information in helping me do my job. I think it is a valuable resource to professionals who work with autistic children.

A Reaction By:

Boeckenhauer, Sharon J.
Parent of an autistic child
Laurel, Nebraska

I am the parent of a nine-year-old son with autism. My response to the paper written by Dr. Robert H. Zabel should primarily be viewed as my own personal opinion. However, as a president of the Nebraska Chapter of the National Society for Children and Adults with Autism (NSAC), my remarks may be seen by some to represent the viewpoints of this organization. For that reason, I have consulted with knowledgeable persons in the field of autism regarding key issues in this paper and I have endeavored to respond to it in a way that reflects the general attitudes of other parents of autistic children.

I sincerely appreciate the opportunity to respond to the Zabel paper. There are many opinions presented in this paper which I wish to address, and I will do so in the following order: 1) A discussion of points where I agree with Zabel; 2) A listing of minor points which I disagree; and 3) The main portion of my response which will deal with my major concerns and objections to the paper.

First of all, I agree with Dr. Zabel when he states that information indicates that "...an autistic child's peers, as well as adults, can increase the child's social interaction, and that it can continue to increase over time and generalize to other situations." We have known this to be true, and have seen it demonstrated in several instances. With our son, Eric, the more time he can spend in a normal classroom, the more normal he becomes. In addition, structured language therapy with another child was used to increase Eric's interactions with his peers. Much progress has been made by using peer models to increase Eric's appropriate social interactions.

I am also happy to see the opinion presented that: "physically aversive techniques are generally used as a last resort. Other behavioral techniques such as reinforcement of incompatible behavior and the removal of the sensory consequences of self-stimulating behavior may have equal effectiveness." It has been my experience that other behavioral techniques including those listed above are both successful and preferable.

This paper contains several word choices and implied information which I find objectionable. It is remarkable how much

one small word can sometimes alter the meaning or tone of a statement. In the first section labeled Etiology, Dr. Zabel states that, "In fact, there is evidence that parents of autistic children, as a group, are actually comparable to those of normal children" (my added emphasis). The tone of that statement implies that it is a phenomenal discovery to learn that parents of autistic children and parents of "normal" children have no real differences between them. The fact that most parents of autistic children are also the parents of one or more normal children seems to have eluded Dr. Zabel!

In the section entitled Characteristics, Dr. Zabel states "Although the term 'autism' has been used interchangeably with 'childhood psychosis' and 'childhood schizophrenia' as well as other labels for severe emotional disturbance, there has lately been a tightening of the diagnostic category." I would prefer that it read: "the term 'autism' has, in the past, been used interchangeably" etc., to indicate that this mistaken word usage should not occur in 1982. He goes on to present the idea that the change in the title of the Journal of Autism and Childhood Schizophrenia to Journal of Autism and Developmental Disorders is an effort to distinguish autism from other 'psychological' disorders. The word "other" should be omitted from this sentence, as it inaccurately places autism in a psychological disorder category.

One final point in this portion of my response concerns a statement in the section entitled Behavioral Approaches in which the author reports that "there have been attempts at providing behavioral explanations for the learning of autistic behavior" and that "most behaviorists are more concerned with how the current behavior of autistic children can be improved." The source listed as having tried to provide an explanation of how autistic behavior is learned, is more than twenty years old, and I seriously doubt that it was necessary to include this little bit of information. I can personally refute the implication of the statement with a personal example. When our Eric was born, he was a cuddly and lovable baby with my husband and me. However, when he was first introduced to his grandparents at the age of three weeks, he arched his back with such strength that he almost fell. Looking back on it now, we believe that he was attempting to avoid this newcomer in his life. I am positive that there is no evidence to indicate that my son learned this behavior in three short weeks!

While the examples listed above do represent concerns about this paper, I do not want my discussion of them to overshadow the next portion of my response. In the following pages I will refute some of the critical points which Dr. Zabel has presented.

To begin with, I am upset by the way the author handles the "refrigerator" parent theory, which implies that a cold, rejecting parent has created a withdrawing, isolated child. It

is interesting to note that there are numerous pieces of evidence within this paper to refute this theory. For example, Dr. Zabel states very early in the paper that there was a growing awareness among professionals and parents that there was a lack of evidence to support this theory as much as twenty years ago. He later lists the criticism of the psychoeducational approaches, including"..the anecdotal nature of evaluation of children's progress in these programs and the difficulties in replicating procedures.."

In addition, the author reports on a study done in an attempt to evaluate the success of a behaviorally oriented program at UCLA. The follow-up data of autistic children four years after they had been in this program showed that their continued progress was determined by where the children were discharged: "those who went to state hospitals lost what they had gained, (and) children who stayed with their parents maintained gains or progressed even further." Dr. Zabel states that it remains unclear how the hospital or home environments contributed, yet it would be incongruous to believe that parents who had helped their children progress could also be the persons capable of causing the autism in the first place!

Dr. Zabel makes an interesting statement in the section labeled Interventions when he states: "..major intervention categories also tend to imply views of the nature and etiology of the condition. Some of these can be considered biomedical, others psychoeducational, and yet others behavioral in orientation." If the type of intervention implies the cause of the condition, we can draw the conclusion that the intervention which is not successful does not lend credence to its implied cause. The evidence presented in this paper indicates that the behavioral interventions not only possess the most, but also the strongest proof of success in treating autism. On the other hand, the psychoeducational approaches have difficulty in producing concrete evidence of success with the autistic population.

Even when the bulk of evidence which Dr. Zabel presents indicates that adverse parenting should be definitely disregarded as a cause of autism, he states the situation in his conclusion in this manner: "At this time, some types of physiological inadequacies or malfunctions appear more likely than reactions to adverse parenting as sources of the disorder" (my added emphasis). That statement, coupled with the author's statement very early in the paper that: "The etiology, or causes, of autism have been a source of considerable controversy and probably the major impetus behind efforts to distinguish the syndrome from other forms of 'emotional disturbance'" (my added emphasis), indicate that Dr. Zabel still wishes to hold on to the possibility that cold, unloving parents may have caused autism and that it is a form of emotional disturbance. He has not proven this point, and in

fact, the evidence he presents strongly disproves it. I know of no case anywhere that demonstrates that a child was actually caused to be autistic by his parents or anyone else.

The second statement quoted in the above paragraph indicates Dr. Zabel's belief that the implication of etiology was the major reason to switch autism from the category of "Severely Emotionally Disturbed" to "Other Health Impaired." In fact, this was a very necessary change to prevent the great harm that had been done to autistic children and their families because of the S.E.D. label. Frank Warren, executive director of the National Society for Children and Adults with Autism, reported receiving five pounds of letters describing problems created by the S.E.D. label. For example, one set of parents in California was made to go through intrusive, accusatory therapy in order to get their child enrolled in school as recently as 1980. Many other children were excluded from school because of the severely emotionally disturbed label.

There is a growing awareness that a child's parents are his best friends and teachers. Dr. Zabel reports on the TEACCH program in North Carolina which emphasizes parent involvement. Also, several Nebraska couples can attest to their own participation in their child's program after receiving parent training at the Judevine Center for Autistic Children in St. Louis. The anxiety caused by implying to a parent that he may have caused his child's autism is so devastating that he may never overcome it enough to be the teacher and advocate his child's needs. The implication of guilt is present within the S.E.D. label, and that is a sufficient enough reason to have autism removed from that label.

Another major point which Dr. Zabel attempts to make in this paper is that there will be many problems in the future created by the switch of autism from the category of "severely emotionally disturbed" to "other health impaired." In reality, he cannot present evidence to indicate that any of these presumed problems will actually occur. For example, he states that there might be fewer appropriately trained teachers because of this switch. This is interesting in light of the fact that in his preceding paragraph Dr. Zabel has admitted that: "additional skills that may be especially important for teachers of autistic children should include emphasis upon knowledge of language development and intervention techniques appropriate for autistic children." All three of my son's teachers have stated that their college courses and endorsements in the area of Emotionally Disturbed did not prepare them to work wi 'm. In addition, they all testified to the fact that the training they received at the Judevine Center was the greatest preparation they received for teaching an autistic child. I question, therefore, whether we have enough appropriately trained teachers now? Without the switch away from seriously emotionally disturbed, would we ever have the

need for specialized training to teach autistic children acknowledged?

A second problem which Dr. Zabel suggests is that while integration with normal children is important, the switch "...would appear to create some psychological barriers to integrated groupings of students." The evidence would appear to prove just the opposite--that the parents of normal children would have less reluctance about integrating their child with one in the other health impaired category than with one categorized as seriously emotionally disturbed.

Near the end of this paper, Dr. Zabel concludes that:

"..the shift of categories primarily reflects concern with etiological implications of the label "seriously emotionally disturbed," rather than evidence that substantially different types of intervention strategies, professional training of teachers, or delivery models are required for autistic children. At least, it would be hard to support the argument that the educational needs of autistic children are more akin to children presently labeled 'other health impaired' than to those labeled 'seriously emotionally disturbed'."

I have included the above paragraph in its entirety, because there are several points that need further explanation and rebuttal. First of all, Dr. Zabel has implied that the intervention strategies and teacher training for S.E.D. children are comparable to those of autistic children. (Which he "substantiates" by quoting himself in an unpublished paper!) In reality, the opposite is true: seriously emotionally disturbed children require a very unstructured, loving environment, and Dr. Zabel has already admitted that the most progress has been shown by autistic children who are placed in a very structured environment.

A second implication in the paragraph quoted above is that autism must be "akin" to children labeled other health impaired in order to be in that category. This is just not so, as the category other health impaired is really a miscellaneous collection of disabilities unique from each other as well as from the other categories. Within this label, autism and the other disabilities listed there are numbered and thus separated from each other.

One major flaw in many of Dr. Zabel's conclusions and suggested problems with the switch in categories is that he has overlooked the power of the Individualized Education Plan (I.E.P.). The I.E.P. can contain provisions to eliminate all of the problems which the author alludes to. For example, we specified in our son's I.E.P. that his teacher would receive training at the Judevine Center. Also, we have always included guidelines in the I.E.P. regarding the amount of mainstreaming and the types of activities in which he would be integrated with normal children. The switch in categories does nothing to usurp the powers of

the I.E.P., which can have anything built into it to meet the individual needs of the child.

For the above reasons, it is apparent that Dr. Zabel has arrived at conclusions that are not supported by the evidence presented in this paper, and that he has alluded to potential problems without logical substantiation.

In summary, I wish to discuss the positive results of switching autism from the seriously emotionally disturbed category to other health impaired, and briefly reiterate the major points of my response.

There has been an increasing awareness that autism is a communication handicap with unique educational needs since the switch in categories. Due to this growing awareness, NSAC has received a grant from the Office of Special Education to develop a National Personnel Training Program (NSAC/NPT). Through this grant, selected state personnel will receive intensive instruction in teacher training and state-of-the-art techniques for educating students with autism and related communication handicaps.

Federal legislation states that each child shall receive an "appropriate" education. This means that the child shall have a program suited to his individual needs. The separation of autism from the S.E.D. category is important in gaining a standard for teacher qualifications, as well as to prevent the untrue implication that parents caused their children to become autistic. It is the I.E.P., however, that determines the exact program for each child.

I am greatly concerned with the "dark ages" mentality that a cold, unloving parent can cause autism in his child. This is a thoroughly discredited theory that needs to be finally disposed of along with the theories that these children are "touched by God","created by the Devil", etc. The author has apparently assumed that only broad-minded, intellectual persons will read this paper and sort out the evidence which refutes the "refrigerator" parent theory. I contend that to discuss it without stating that it is totally untrue leaves the thought in the readers mind that it may indeed be accurate. The energy which we spend debating the falsehood of this theory robs that much energy from the treatment of autistic children. As in the case of the proverbial "dead horse," we have beat this subject long enough, and need to put it to rest for good.

A Reaction by:

Harms, Kathy
Spec. Ed. Program Coordinator
Grand Island Public Schools
Grand Island, Nebraska

This was a most informative article. I found the article particularly interesting as I have had the opportunity to listen to lectures by Dr. Eric Schopler and Dr. Gary Mesibov,

both of whom were mentioned in Dr. Zabel's paper. Dr. Schopler and Dr. Mesibov were included in the list of speakers at the 1981 Conference in Chapel Hill, North Carolina, entitled the "Diagnosis and Assessment of Autistic Children." Project TEACCH, a state-wide system in North Carolina utilizing a developmental curriculum emphasizing parent involvement, was mentioned, however, the actual methods and procedures were not elaborated upon. Instead, the emphasis was placed on diagnosing and assessing autistic children. Since that time I have, also, had the opportunity to participate in a seven-day workshop stemming from the work of Dr. Madeline Hunter of UCLA. Dr. Hunter developed a course of study translating instructional theory into action. The 1981 Conference on Autism at Chapel Hill and the Madeline Hunter Workshop both seem to expand the discussion in Dr. Zabel's paper.

Dr. Zabel makes reference to Lovaas and his associates at UCLA who have reported studies relating to the application of techniques to teach language to autistic children. Lovaas admits that even with intensive training, autistic children generally do not acquire what would be considered normal language and that there are problems with generalization of skills across settings. He has demonstrated, however, that the systematic application of learning principles can produce substantial progress for most autistic children. Reference to "systematic application of learning principles" was, to me, intriquing. I wanted to have the opportunity to question this comment further. Dr. Madeline Hunter's course "Instructional Theory Into Practice" does elaborate on this and I was wondering if this systematic application of learning principles outlined in her course is, indeed, one in the same. Teachers who have taken the course "Instructional Theory Into Practice" have commented on the course's relevancy to the day-to-day operation of the classroom. It is not another methods class. The content is the four essential elements that are present in successful teaching. These four elements were identified by a team of educators at UCLA about fourteen years ago after they observed hundreds of successful and unsuccessful teaching in order to factor out and label those elements of successful teaching that were content free, age of the learner free, and culture free. Over and over again, it was apparent that in the successful classrooms the teachers were:

1. Teaching to an objective
2. Selecting an objective at the correct level of difficulty
3. Monitoring the students and adjusting the teaching
4. Using the principles of learning such as active participation, anticipatory set, motivation, closure, modeling, meaning and reinforcement.

Once these key elements were identified the UCLA team had to devise ways to teach these skills

to classroom teachers so that they became an integral part of teachers daily decisions and practice in the classroom.

It seems to me then that employing the four key elements, the teacher should be meeting with relative success regardless of content area (i.e., language, math, reading, self-help, P.E., etc.). It is important to not only select the objective(s) but to make sure that the objective taught is at the correct level of difficulty. For example, does the child need to know, to comprehend, to apply, to analyze, to synthesize, or to evaluate? In other words, what is the final objective and is the teaching steering the student on the correct level of difficulty?

Task analysis is the vehicle for doing this. Another way of analyzing objectives is the "three-legged model." This format breaks the behavioral objective down further. One "leg" requires the teacher to decide at what level the student will be working at (knowledge level, comprehension level, etc.). Obviously, with the autistic population a teacher feels successful if after teaching a specific skill the student can first demonstrate knowledge or recall, then later can demonstrate comprehension or interpretation of the learning, and finally apply or generalize the skill across settings. Another "leg" defines the teacher's actions. It is in this section where the explanations, questions, directions and activities are planned and noted. The third "leg" describes the student's behaviors. It is here that the expected covert and overt behaviors are noted -- thus the end result. If the student in reality doesn't demonstrate the anticipated behavior, then it is up to the teacher to adjust the teaching.

To me, this brings us back to Lovaas' remarks at UCLA when he said there are problems with generalization of skills across settings, and he has demonstrated that the "systematic application of learning principles can produce substantial progress for most autistic children." My questions then are:

Isn't this a viable 4-step approach regardless of content area?

Isn't this a viable 4-step approach regardless of whether the child is diagnosed as handicapped or not?

Dr. Zabel stated that "determination of the constituent characteristics of a syndrome and the categorical labels they generate can serve some important functions in addition to providing administrative convenience in counting children and funding programs." This I can understand. Dr. Zabel then goes on to say that "the major purpose of any diagnostic label should be to indicate strategies or interventions for the members of that diagnostic category." This I would question in part. Dr. Eric Schopler, at the 1981 Autism Conference at Chapel Hill, North Carolina, defined the difference between diagnosis and assessment. He explained diagnosis as the act of classifying or group-

ing children. A diagnosis results in a label and is primarily used for research purposes. Assessment is the act of identifying needs of each individual child and developing treatment procedures. He described the three major procedures in assessment as: 1) Devising information from a psychoeducational profile; 2) Incorporating home survival information; 3) Obtaining classroom information from teachers regarding teaching methods and school survival skills. It seems to me that the "assessment" of the child should determine strategies or interventions for the members of a specific category rather than the "diagnosis."

Michael Rutter has stated: "Demonstration that a treatment is effective does not thereby mean that its theoretical basis was also correct. Conversely, because a theory is right it does not necessarily mean that the treatment methods which derive from it will be successful." I would have to agree with this in part as it seems that what works for one child may not seem to work for another. However, I am wondering if the work of Dr. Madeline Hunter is still on the right track. Perhaps the breakdown does not come from the methods tried, but from the breakdown, instead, in the task analysis. Perhaps the teacher needs to go back and decide whether the teaching included all of the essential objectives leading to the overall or final objective. Was the child at a different "entry level" than the teacher assumed? Was the level of difficulty correctly calculated? Was there a relevant one-to-one match between the defined objective and the resultant overt behavior of the student? If not, perhaps the problem lies not with the fact that the child is diagnosed "autistic" but instead, with the fact that there was a breakdown in teaching and that some place there is a missing piece -- a missing enroute objective?

It goes without saying that Dr. Zabel's paper was informative and useful. He obviously has pooled information from a variety of sources. The issues are important as well as controversial. Controversy can be defined as "strife." "Strife", in turn, can be defined as "exertion or contention for superiority." There are no black and white answers. Of course, we are striving for superiority--for what is best for our students. These concerns, I don't feel, are unique to Nebraska, or to Grand Island. In my particular setting, we are making a shift in our thinking. We are becoming more and more aware that the autistic children, all of whom have difficulty generalizing across settings, remain in many instances on the "knowledge" level. We are striving for a way to move them on to the "comprehension" level and then into "application." We are keenly aware of the difficulty in getting there. We are meeting regularly as professionals, brainstorming, task analyzing, monitoring, and adjusting. We will never be "done" nor have a finished "recipe" book for our

efforts. We will hopefully have though a demonstration of improvement evidenced through our students.

A Reaction by:

Hintz, Roberta
Classroom Teacher
Grand Island Public Schools
Grand Island, Nebraska

I thought Dr. Zabel's paper was thoughtful and well written. It was helpful in that it presented in an organized way many of the conflicting ideas currently at issue on how to teach autistic children. The issues which this paper addresses are extremely important since the way one perceives the etiology has direct implications on intervention strategies.

In order to receive funding, we in Nebraska have come under the umbrella of behaviorally impaired. It is as good as any other label. I agree with Dr. Zabel that, "The major purpose of any diagnostic label should be to indicate strategies or interventions for the members of that diagnostic category." Nebraska is also faced with designing programs with a "functional curriculum to fit the individual child's needs within a developmental framework, rather than a curriculum to fit a diagnostic label." In this we are not unique.

I teach in a "Communication Disorders" classroom. Some of my students have one or more of Kanner's four major descriptors. Since each child is a unique individual we use an eclectic approach combining behavioral and psychoeducational methods. My experience has been that children do better in a structured setting but I thought it might be due to the fact that I am more comfortable with this style of teaching. However, the research cited confirms my experience. It would be wonderful to duplicate a Lovaas or Donnellan but what works for them may not work for someone else with a different personality and a different student. There are too many intangibles and variables. We each must do the best we can with what we have. To paraphrase Gertrude Stein, " a good teacher, is a good teacher, is a good teacher!"

A Reaction by:

Naviaux, Merry
BI Teacher
Ralston Public Schools
Ralston, Nebraska

It does seem to be a case of label vs. treatment causing two major areas of concern. First a label can be given and a case made in support of that label but that then requires an appropriately labeled (qualified) teacher trained to work with the specific population designated. Seconoly the possibility of pro-

blems with financial support for any additional categories does exist, especially for a low incidence population.

The changes of categories that Zabel reports does seem to be reflecting parental concern with etiological implications rather than any major differences in intervention strategy, delivery model, or professional training of teachers. The change of the Nebraska State Category from seriously emotionally disturbed to behaviorally impaired should reflect a continuation of concern over appropriate interventions rather than focus on causative factors which is far more practical - especially from the school's viewpoint.

A Reaction by:

Meierhenry, Sue
BI Teacher
Ralston Public Schools
Ralston, Nebraska

Zabel provides an excellent overview of the background issues regarding autism. The reason for identifying characteristics of autism is to get children served. The lack of definitive research to document success for particular treatment programs is one of the major issues demanding educators' attention. A certain treatment may be effective with a certain autistic child without our knowing why. The alternative is to employ a treatment which fits our theoretical framework, without regard for the individual child. The article supports the utilization of an eclectic approach, and the effectiveness of using what works for the child, a "theory" with which most practicing educators are familiar. Also implied is the danger in rigid adherence to any one treatment strategy.

Another important issue is that of diagnostic labeling. Ideally the purpose of categorizing should be for the delivery of appropriate services. In Nebraska and elsewhere, even with the change from "emotionally disturbed" to "behaviorally impaired", autistic children may be placed under a variety of labels in school and institutional programs. Factors such as severity of behavior, perceived intellectual functioning, age level, verbal ability, and program availability all influence the placement decision. The category of behaviorally disordered does seem to be the best suited for delivery of services to autistic children, as Zabel suggests. With future funding for special education becoming even more bleak, establishing another category for a low-incidence population is not realistic. This would be an inefficient use of existing resources. With recent studies demonstrating the value of social skills training, it would not seem warranted to isolate autistic children.

In terms of teacher training, Zabel states that intervention strategies are similar for autistic and behaviorally impaired

children. Teachers are currently trained in Nebraska in intervention strategies and language development, but more emphasis could be focused on application to autistic-like behaviors. The most valuable inclusion to any teacher training program would be direct field experience in working with autistic children.

One of the greatest needs we have in Nebraska is the dissemination of new findings and treatment programs, to allow educators access to current information. Rural isolation prevents many special teachers from sharing the communication which is necessary for continued survival in the classroom.

A Reaction by:

Pillard, Ed
Director of Special Services
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General reactions to the paper are that it does an excellent job of reviewing the historical background of etiology and treatment approaches in the field of autism. It seems the paper would be quite helpful to a general professional audience as a review and update of the current scene in this field. To those professionals working directly with autistic children in treatment and research however, the paper may lack much detail. Therefore the worth of the paper would be measured on the basis of the audience for which it was intended.

A Reaction by:

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Dr. Zabel's article is a comprehensive review of approaches to serving the autistic child. It reviews the early approaches to serving such children and each of the progressive milestones professionals have passed in their efforts to meet the needs of diagnosing, treating, and educating this most difficult population. Dr. Zabel makes one statement in the opening paragraph of his article regarding the disproportionate attention and concern devoted to the specific handicapping condition of autism. He implies that this is due primarily to the bizarre and puzzling nature of this handicapping condition, but I cannot help but believe that it is the frustration of the bleak future for these children that draws our primary concern. Dr. Zabel does a nice job of reviewing the conflicts that have centered around the cause and effect of autism for several generations. He points out that in the early interpretations of this syndrome the primary causal factor was seen as the cold and

rejecting parents. Whereas, today we realize that the lack of responsiveness on the part of the child may, in some instance, have been a causal factor in some parents feeling rejected by the child, rather than the other way around. However, I believe that the early association with the abandonment of the feral children described by Bettelheim and others tended to reinforce the negative image of wild, primitive behavior in autistic children.

In a short article, such as this one, it is not possible to update totally some of the new work being done in the organic origin of autism. It would be appropriate however, to refer the reader to such texts as, Autism, the 1976 publication by Ritvo, et al, or Ann Campbell's 1977 study of drug research and treatment of autistic children. Both of these publications do an excellent job of updating us on some of the more recent attempts to isolate the specific maladaptive physical structure that may be creating this syndrome. Zabel's paper can serve a very useful function in the field.

In his attempt to review the etiology and the changing attitudes toward autism, he does an excellent job of discussing the Department of Education's changing label for this handicapping condition. He discusses both the positive and negative aspects of changing autism from being viewed as a Serious Emotional Disturbance, to being categorized under Other Health Impaired. He also spends some time in reviewing the function of a label or category. They serve only one function, unlike medicine, where the diagnoses will dictate treatment. Within educational programs it only provides a broad framework while program specifics must be built on the needs of the individual child and his developmental level. Autism, as a category, can only define the type of language and behavioral deficiency that interferes with intellectual and social growth. No label can totally define the level of programming required to serve the child's educational needs. Even when a child does meet all of the criterion for being labeled autistic, the label itself provides little information by which to establish the initial programming base line. Each child must be evaluated individually. In the most recent definition of autistic children, that published by the National Society for Autistic Children, we are again reminded that over and above the secondary medical problems, the serious language deficiencies, and the interferring negative behavior, we still must establish a cognitive level from which to begin work with these children. We are reminded that on intelligence testing, approximately 60% of autistic children will still score below 50 I.Q., meaning that they will be functioning in the moderate to severely/profoundly retarded range. Twenty percent will function between the 50 to 70 I.Q. level; and only 20% greater than 70 I.Q.. Although some of Ritvo and Freeman's work indicates that some I.Q. gains can be demonstrated with appropriate programming, we still must realis-

tically accept restrictive cognitive functioning as one of our primary educational concerns.

Another area that Dr. Zabel addresses well is the approach to different models of treatment for our children. He reviews the bio-medical, psychoeducational, and behavioral approaches to serving autistic children. Although very few children are seen exclusively under the bio-medical model, the secondary behavioral problems and medical problems of most autistic children require some ongoing medical intervention throughout their lives. He reviews the conflicts between the psychoeducational intervention and the behavioral programs that have become most commonly used. The point I feel he makes most effectively, throughout each of his reviews of the research on different programming models, is that to label a child autistic is essentially a starting point. Probably in no other synorome will we find the designated label to be of so little help. Each child is extremely unique and programming must be designed specifically for that child and that child's varying developmental levels. Each child must be evaluated and base-lined accurately in psycho-motor, language, general cognitive development, and behavioral areas before realistic educational designs can be established for that child's progress. The issues addressed in this paper appear to lead the reader to the conclusion that an eclectic approach toward serving the autistic child is necessary. Yet the model that appears to be most effective for large groups of children in an educational setting appears to be the behavior model. The other models presented are basically medical and outside the province of the training and experience of teachers. They cannot be ignored, for only through cooperative home and school management, can we demonstrate a measurable change in our autistic population of children.

In Nebraska the programs in the Omaha-Lincoln metropolitan area have made significant efforts to serve the needs of this population. Because of this the severely involved group of children has tended to be served primarily in this metropolitan area. Because of the compounding retardation, the majority of our children are served through community based programs for retarded children. These community based programs have become the primary residential and parent support system for identifying service models and assisting parents with location of appropriate day programs. There has consistently been a lack of carefully coordinated home programming to maintain some of the growth with these children. Total language programs in the school, in cooperation with service models for severely/profoundly handicapped children, have provided the primary growth medium for our autistic children. Yet many of our children have been unable to find a productive life style in a group home, sheltered workshop, or other community based programming when they have

reached adolescence. Whether it is the result of chemical changes in the body with puberty, or some other unknown organic agent, many of our children have not been able to be served as young adults; and it has been necessary for them to take painful steps backwards into the institutional model after several years in community-based programming. This is of genuine concern to all of us who work with this population.

As the public school programs become more adept and technically more successful with this population it becomes our responsibility to act as a resource to these community-based programs and to the smaller more rural communities. This should help to expand the service models and to assist them in providing an appropriate therapeutic environment that allow more autistic children to remain in the community.

Zabel's article has raised many issues that are most relevant to those of us on "the front lines." His presentation has been thought provoking and stimulating. Our task is a very large one with many unanswered questions. Our best hope for progress is to continue to share both our successes and failures.

References

Campbell, M., Geller, B. & Cohen, I. L. Current status of drug research and treatment with autistic children. Journal of Pediatric Psychology, Vol. 2, No. 4, 1977, 153-161.

Ritvo, E. R. (Ed.) Autism - Diagnosis, current research and management. New York: Spectrum Publications, Inc., 1976.

Ritvo, E. R. & Freeman, B. J. Current status of biochemical research in autism. Journal of Pediatric Psychology, Vol. 2, No. 4, 1977, 149-152.

Ritvo, E. R. & Freeman, B. J. National Society for Autistic Children Definition of the syndrome of autism. Journal of Pediatric Psychology, Vol. 2, No. 4, 1977, 146-148.